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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/533,680

05/03/2005

Dominique Placko

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EXAMINER

THORNEWELL, KIMBERLY A

ART UNIT

PAPER NUMBER

2128

MAIL DATE

DELIVERY MODE

07/02/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/533,680

Applicant(s)

PLACKO ET AL.

Examiner

Kimberly Thornewell

Art Unit

2128

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. In the Final Office Action dated 11/30/2006, claims 1-29 were rejected. In the reply dated 6/4/2007, Applicants amended claim 21 and added new claim 30. Therefore claims 1-30 are pending in the instant application.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/4/2007 has been entered.

Response to Arguments

Claim Rejections, 35 USC § 101

3. Regarding claims 1-29, Applicant's argument (Remarks page 15 second paragraph) that the claims produce a practical application is because the claimed method may be used to display a map of a physical quantity, to find an optimal position of a sensor, or to determine an inhomegeneity of the obstacle is not persuasive. In particular, the claims do not provide a useful, concrete and tangible result because these practical applications are not positively recited in the independent claims.

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Claim Rejections, 35 USC § 103

4. Applicant's arguments, see page 17, filed 6/4/2007, with respect to claims 1-7, 10-11, 17, 18, 24 and 26-29 have been fully considered and are persuasive. The rejection of claims 1-7, 10-11, 17, 18, 24 and 26-29 under 35 USC § 103(a) has been withdrawn.

Claim Objections

5. Claim 30 is objected to because of the following informalities:

- Step d, line 4, "coefficients may be used" should read, "coefficients are used."
- Step d, line 6, "or to display a map" should read, "and display a map."

Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Independent claims 1, 29 and 30 are directed to evaluating a "physical quantity." It is unclear what Applicants intend to encompass as the physical quantity.

Claim Rejections - 35 USC § 101

8. 35 U.S.C. 101 reads as follows:

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Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9. Claims 1-29 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

MPEP 2106 recites, in part:

b) "TANGIBLE RESULT"

The tangible requirement does not necessarily mean that a claim must either be tied to a particular machine or apparatus or must operate to change articles or materials to a different state or thing. However, the tangible requirement does require that the claim must recite more than a 35 U.S.C. 101 judicial exception, in that the process claim must set forth a practical application of that judicial exception to produce a real-world result.

MPEP 2106.01 recites, in part:

Since a computer program is merely a set of instructions capable of being executed by a computer, the computer program itself is not a process and USPTO personnel should treat a claim for a computer program, without the computer-readable medium needed to realize the computer program's functionality, as nonstatutory functional descriptive material. When a computer program is claimed in a process where the computer is executing the computer program's instructions, USPTO personnel should treat the claim as a process claim.

Regarding claims 1-28, the claimed method results in evaluating coefficients of a second column matrix. Applicants have not set forth the practical application of the evaluate coefficients to produce a real-world result. Because claims 1-28 are directed to a method lacking a useful, concrete and tangible result it is deemed non-statutory under 35 USC § 101.

Claim 29 is directed to a computer program product comprising instructions for a method substantially the same as the method claimed in claim 1. Therefore claim 29 suffers the same

deficiencies as those discussed with respect to claim 1 above. Hence, claim 29 also lacks a useful, concrete and tangible result and is directed to non-statutory subject matter.

Allowable Subject Matter

10. Claims 1-30 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, and 35 USC § 101, set forth in this Office action.

The following is a statement of reasons for the indication of allowable subject matter: the prior art of record, while disclosing evaluating a physical quantity associated with an interaction between a wave and an obstacle in a region of three-dimensional space by meshing a surface into a plurality of surface samples, using a matrix system comprising an interaction matrix, a first column matrix and a second column matrix, assigning chosen values of the physical quantity to predetermined points, and applying the interaction matrix to a chosen region of three-dimensional space to evaluate coefficients of the second column matrix, does not disclose the predetermined points being associated with a surface sample corresponding to a point of contact between the surface sample and a hemisphere, *wherein the hemisphe is oriented inwardly for a propagation of a secondary wave in a second medium and outwardly for a propagation of the secondary wave in a first medium* as expressly claimed, and as defined in the specification (see page 28 line 32-page 31 line 18).

4. As stated in MPEP § 2131.02, "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim,

but this is not an *ipse dixit* test, i.e., identity of terminology is not required. In *re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990). Therefore, the prior art of record does not anticipate, render obvious or read on the claims and the claims do not read on the prior art.

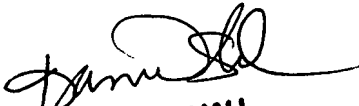
Conclusion

11. The prior art made of record in the Form PTO 892 and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly Thornewell whose telephone number is (571)272-6543. The examiner can normally be reached on 9am-5:30pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamini Shah can be reached on (571)272-2279. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


KAMINI SHAH
SUPERVISORY PATENT EXAMINER

Kimberly A. Thornewell

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Patent Examiner
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